

Scope of Work for USGS technical assistance in assessing effectiveness of CERCLA removal actions at mine drainage sites in Region VIII watersheds

Scope of Work

The USGS will provide technical support and professional services to assist EPA Region VIII in their assessment of water-quality conditions within historical mining impacted watersheds, including tributary sub-watersheds.

Major duties include:

1. Assist EPA in the development and implementation of a surface-water quality monitoring strategy to evaluate the effectiveness of ongoing remedial actions within the watershed. Particular emphasis will be placed on evaluating the effectiveness of removal actions already undertaken and assist in monitoring strategies for continuing EPA and or Joint EPA/State removal actions necessary within the watershed to mitigate ongoing releases.
2. Assist EPA in the evaluation of existing and future data sets that quantify water-quality conditions within the watershed, with emphasis on quantifying the changes in water quality that occur following remedial actions including but not limited to the bulkheading of draining adits and or the capping of mine waste rock and tailing piles.
3. Provide technical expertise related to state-of-the-art techniques for collection and analysis of hydrologic and geochemical data. This expertise includes streamflow measurement using acoustic Doppler technology, the collection of width-integrated samples in poorly mixed surface waters, and accurate determination of instream water-quality parameters such as pH.
4. Quantitatively subdivide metal loads attributed to other sources into individual source areas, such that future remedial actions can target the mining-related sources that have the largest detrimental impact on water quality. Sampling activities under this SOW (or IAG) will be conducted under an approved EPA SAP.
5. Orally present significant findings related to duties (2) and (4) to EPA personnel and other interested stakeholders. Provide technical expertise to the watershed stakeholders through continued attendance at task force meetings and field trips. Attend meetings with EPA as necessary to review and discuss monitoring strategy.